

US EPA ARCHIVE DOCUMENT

# The Impact of the 2008 SPCC Rule on Oil Production Facilities



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- Published in the *FR* on December 5, 2008
- Effective on January 14, 2010
- New provisions may be subject to change
- The amendments
  - increase clarity
  - tailor and streamline certain requirements
  - facilitate compliance by owners and operators of a facility



# Revisions Specifically for Oil Production Facilities



# Revisions Related to Oil Production Facilities

Provisions related to production facilities that have been revised include:

1. Definition of Facility
2. Definition of Production Facility
3. SPCC Plan Preparation and Implementation Timeframe
4. Flowlines and Intra-facility Gathering Lines
5. Flow-through Process Vessels
6. Alternative Qualified Facility Eligibility Criteria for Production Facilities
7. Produced Water Containers
8. Oil and Natural Gas Pipeline Facilities
9. Definition of “Permanently Closed”

# Definition of “Facility”

- Clarifies that the definition of facility alone determines SPCC applicability.
- Clarifies that containers can be separated or aggregated, based on various factors in defining “facility.”
  - The owner or operator has discretion in identifying which contiguous or non-contiguous buildings, properties, parcels, leases, structures, installations, pipes, or pipelines make up the facility
- Adds the terms “property,” “parcel,” and “lease” to the list of example terms that can be considered in determining facility boundaries.
- Clarifies that the term “waste treatment” refers to oil waste treatment.

# Definition of “Production Facility”

- Revision clarifies that the definition of “production facility” is used to determine which sections of the rule apply at a particular facility (e.g., §112.9).
- Revised definition is consistent with the revision to the definition of “facility”.
- Removes the “single geographic” limitation from the definition.
- Clarifies that “condensate” storage is a production facility activity at a wet gas facility.





# Amended Definition

Production facility means all structures (including but not limited to wells, platforms, or storage facilities), piping (including but not limited to flowlines or **intra-facility** gathering lines), or equipment (including but not limited to workover equipment, separation equipment, or auxiliary non-transportation-related equipment) used in the production, extraction, recovery, lifting, stabilization, separation or treating of oil (**including condensate**), or associated storage or measurement, and is located in an oil or gas field, at a facility. **This definition governs whether such structures, piping, or equipment are subject to a specific section of this part.**



## 1. Definition of a Production Facility

§112.2

*Amendments not effective until Jan. 14, 2010; subject to public comment and EPA review*



# SPCC Plan Preparation and Implementation Timeframe

- A new oil production facility has six months after the start of operations to prepare and implement an SPCC Plan.
  - A new production facility is one that becomes operational after July 1, 2009.
  - “Start of operations” is indicated by the start of well fluid pumping, transfer via flowlines, separation, treatment or storage of crude oil, or other oil storage in capacities greater than the SPCC applicability threshold.
- The timeframe was chosen because oil production facilities are likely to stabilize within six months after the start of operations.
  - Applicable only to oil production facilities, because of their uniquely variable and uncertain initial flowrates

## 3. SPCC Plan Preparation and Implementation Timeline

**§112.3(b)(1) and (3)**

*Amendments not effective until Jan. 14, 2010; subject to public comment and EPA review*

# SPCC Plan Preparation and Implementation Timeframe

- Amendment does ***not*** apply to:
  - An existing production facility in which a new well is drilled—facility owner/operator must amend SPCC Plan within 6 months in accordance with §112.5(a)
  - Drilling or workover activities at a production facility—drilling and workover operations are subject to requirements at §112.3(c)



## 3. SPCC Plan Preparation and Implementation Timeline

*Amendments not effective until Jan. 14, 2010; subject to public comment and EPA review*

# Flowlines and Intra-facility Gathering Lines

- What is a flowline?
  - Flowlines are piping that transfer crude oil and well fluids from the wellhead to the tank battery and from the tank battery to the injection well.
- What is a gathering line?
  - Gathering lines transfer crude oil product between tank batteries, within or between facilities .
  - Any gathering lines within the boundaries of a facility are “intra-facility gathering lines” and within EPA’s SPCC jurisdiction.
- “Flowline” and “gathering line” are not defined in the rule.



## 4. Flowlines and Intra-Facility Gathering Lines

*Amendments not effective until Jan. 14, 2010; subject to public comment and EPA review*

# Flowlines and Intra-facility Gathering Lines - Requirements

- Instead of secondary containment for flowlines and intra-facility gathering lines, amended rule requires:
  - Contingency plan
  - Written commitment of manpower, equipment, and materials
- New requirements are optional (may still comply with secondary containment requirements).



## 4. Flowlines and Intra-Facility Gathering Lines

§§112.7(c) and 112.9(d)(3)

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# Gathering Line Exemption

- Gathering lines that are subject to the DOT regulatory requirements at 49 CFR parts 192 or 195 are exempt from the SPCC requirements.



# Flow and Intra-Facility Gathering Line Maintenance Program

- Requirements for flowline and intra-facility gathering line maintenance program for all production facilities were made more specific:
  - Compatibility with production fluids and conditions expected in the operational environment
  - Visual inspection and/or testing on a periodic and regular schedule
    - Frequency and type of testing must allow for the implementation of a contingency plan if there is no secondary containment
  - Corrective action or repairs
  - Prompt removal or initiation of actions to stabilize and remediate any accumulations of oil discharges

## 4. Flowlines and Intra-Facility Gathering Lines

**§112.9(d)(4)**

*Amendments not effective until Jan. 14, 2010; subject to public comment and EPA review*

# Flow-through Process Vessels

- What is a flow-through process vessel at an oil production facility?
  - Has the primary purpose of separating the oil from other fractions (water and/or gas) and sending the fluid streams to the appropriate container
  - Can be horizontal or vertical separation vessels (e.g., heater-treater, free-water knockout, gun-barrel, etc.)
- EPA has finalized a new compliance option for this type of equipment.



## 5. Flow-through Process Vessels

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# Flow-through Process Vessels - Requirements

- Instead of sized secondary containment for flow-through process vessels, amended rule requires:
  - Visual inspection and/or testing on a periodic and regular schedule
  - Corrective action or repairs
  - Prompt removal or initiation of actions to stabilize and remediate any accumulations of oil discharges
- General secondary containment requirements still apply.

# Flow-through Process Vessels - Requirements

- If the facility discharges:
  - More than 1,000 U.S. gallons of oil in a single discharge, **or**
  - More than 42 U.S. gallons of oil in each of two discharges within a 12 month period

from a flow-through process vessel (excluding discharges that are the result of natural disasters, acts of war, or terrorism) then, within six months, an owner/operator must comply with sized secondary containment and inspection requirements under §112.9(c)(2) and (c)(3) for all flow-through process vessels.



# Alternative Qualified Facility Eligibility Criteria for Production Facilities

A qualified oil production facility (Tier II) is one that:

- (1) Has no more than two producing wells per single tank battery if the facility has an injection well; or no more than four producing wells per single tank battery with no injection wells at the facility; and
- (2) Each well produces no more than ten barrels of crude oil per day; and
- (3) Has not had a single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons or two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to Plan certification, or since becoming subject to 40 CFR part 112 if the facility has been in operation for less than three years (excluding discharges that are the result of natural disasters, acts of war, or terrorism).

# Other Qualified Facility Criteria

- An owner or operator of an oil production facility may meet Tier II qualified facility eligibility through either criterion:
  - Aggregate aboveground oil storage capacity of 10,000 U.S. gallons or less; or
  - The criteria described for an onshore oil production facility
- Like other Tier II qualified facilities, the owner or operator may choose to prepare a self-certified SPCC Plan in lieu of a Plan certified by a PE.





# Tier I Eligibility

- A qualified oil production facility may also meet Tier I qualified facility eligibility criterion: no individual aboveground oil storage container with a capacity greater than 5,000 U.S. gallons
  - Eligible to develop an SPCC Plan following the template in Appendix G



# Summary: Alternative QF Eligibility Criteria for Production Facilities

If the oil production facility has...	And the oil production facility...	And...	And...	Then:
Up to four producing wells	Has no injection wells	The production rate at each well is 10 barrels per day or less	Within any twelve-month period, three years prior to the Plan certification date, or since becoming subject to the SPCC rule if in operation for less than three years, there has been: (1) No single discharge of oil to navigable waters or adjoining shorelines exceeding 1,000 U.S. gallons; and (2) No two discharges of oil to navigable waters or adjoining shorelines each exceeding 42 U.S. gallons	The facility is a qualified facility:  Tier I if the facility has no individual aboveground oil containers greater than 5,000 U.S. gallons; otherwise Tier II.
Up to two producing wells	May have one injection well			

## 6. Alternative Qualified Facility Eligibility Criteria for Production Facilities

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# Definition of “Produced Water Container”

- A definition of “produced water container” was promulgated to clarify which containers are subject to the streamlined requirements provided in §112.9(c)(6):

*Produced water container* means a storage container at an oil production facility used to store the produced water after initial oil/water separation, and prior to reinjection, beneficial reuse, discharge, or transfer for disposal.





# Produced Water Containers - Requirements

- Three approaches for produced water containers at oil production facilities:

## 1) Exemption from all rule requirements

- Produced water containers are exempt when a PE certifies, that based on the efficiency of the oil/water separation technology used, the contents of a produced water container, if completely discharged, **does not contain oil in amounts that may be harmful.**
- However, if the facility experiences a discharge from an exempt produced water container in quantities that may be harmful to navigable waters or adjoining shorelines, then the produced water container, piping and appurtenances are no longer exempt from the rule and must comply with all provisions of the SPCC rule within six months of the discharge including sized secondary containment and inspections in accordance with §112.9(c)(2) and (c)(3).

# Produced Water Containers

(continued)

## 2) Alternative option: Exempt from sized containment

- For those that containers cannot meet (1), instead of sized secondary containment, the facility can:
  - Have a PE certify that a practice is established that is designed to remove the amount of free-phase oil from the produced water container on a scheduled and routine basis;
  - Conduct visual inspections, maintenance and corrective action; and
  - General secondary containment requirements still apply.
- If the facility discharges more than 1,000 U.S. gallons of oil in a single discharge as described in §112.1(b), or discharges more than 42 U.S. gallons of oil in each of two discharges as described in §112.1(b) within any twelve month period, from produced water container (excluding discharges that are the result of natural disasters, acts of war, or terrorism) then, within six months, comply with sized secondary containment and inspection requirements under §112.9(c)(2) and (c)(3) for all produced water containers.

## 3) Owner/Operator provides sized secondary containment

# Oil and Natural Gas Pipeline Facilities

- SPCC rule exempts “equipment, or operation of a vessel or transportation-related onshore or offshore facility” that is subject to DOT authority under the Nov. 24, 1971 EPA-DOT Memorandum of Understanding.
- EPA and DOT will revise their 2000 guidance memorandum to more clearly define the jurisdictional scope of the SPCC requirements over oil and gas related infrastructure.
- There are situations where dual jurisdiction may still exist.
- EPA will continue work to improve guidance for pipeline operators.
  - Will communicate the results and seek public comment.

# Definition of “Permanently Closed” - Preamble Clarification

- SPCC rule exempts any oil storage container that is permanently closed.
  - Includes oil storage containers at farms. Also, an empty tank that arrives at a facility is not counted until the tank is used to store oil.
- For a container to be permanently closed:
  - all liquid and sludge must be removed from the container and connecting lines,
  - all connecting lines and piping must be disconnected from the container and blanked off,
  - all valves, except ventilation valves, must be closed and locked, and
  - conspicuous signs must be posted on each container stating that it's a permanently closed container and noting the date of closure.



# Definition of “Permanently Closed”

## - Preamble Clarification (continued)

- Once permanently closed, a container is no longer required to be counted toward the total facility storage capacity.
- Definition of “permanently closed” does not require a container to be removed from a facility.
  - Permanently closed containers may be brought back into use as needed for variations in production rates and economic conditions.
- Permanent closure requirements under the SPCC rule are separate and distinct from the closure requirements in regulations promulgated under Subtitle C of RCRA.

# Other Amendments that Impact Oil Production Facilities

- Clarified definition of “facility” (previously discussed)
- Revised facility diagram requirement to provide additional flexibility
- Further streamlined requirements for a subset of qualified facilities (“Tier I”) and allowed use of an SPCC Plan template
- Modified secondary containment requirement language at §112.7(c) to provide more clarity
- Exemption of non-transportation-related tank trucks from the sized secondary containment requirements

# For More Information

- 2008 SPCC rule amendment Federal Register notice (73 FR 74236; December 5, 2008)
  - <http://www.gpoaccess.gov/fr/>
  - <http://www.epa.gov/emergencies/content/spcc>
- Complete Oil Pollution Prevention regulation (40 CFR part 112)
  - <http://www.gpoaccess.gov/cfr>
  - <http://www.epa.gov/emergencies/lawsregs.htm>
- EPA Emergency Management Web Area
  - [www.epa.gov/emergencies](http://www.epa.gov/emergencies)
  - [www.epa.gov/oilspill](http://www.epa.gov/oilspill)
- Superfund, TRI, EPCRA, RMP, and Oil Information Center
  - (800) 424-9346 or (703) 412-9810
  - TDD (800) 553-7672 or (703) 412-3323
  - <http://www.epa.gov/superfund/contacts/infocenter/index.htm>



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